II. REMARKS:

A. Status of the Claims

Claim 1 was originally filed with the case. Claim 1 was amended and Claims 2-14 were added in the Response to Office Action filed March 15, 2004. Claims 1-14 were rejected in the outstanding Final Office Action. Claims 1, 4, 8 and 11 are amended herein. No claims are added or canceled herein. Therefore, claims 1-14 remain pending.

B. The Claims are Directed to a Single Invention

In paragraphs 1 and 2 of the Final Office Action, the Examiner asserts that the claims use improper Markush language and that the claims newly submitted in the previous response are directed to an invention that is independent or distinct from the invention originally claimed. Furthermore, paragraph 2 states that a complete reply to the final rejection must include cancellation of nonelected claims or separation of nonelected inventions from the elected invention. In effect, the Action sets forth a Restriction Requirement, properly noting that an invention had already been elected by virtue of an Action on the merits of the original claim 1. Applicant has amended the claims herein to cancel the nonelected subject matter, as requested, reserving the right to file such subject matter in later filed divisional applications.

C. The Claims are Enabled

The Action rejects claims 1-14 as lacking enablement for the scope of the claim. According to the Action, the specification does not provide enablement for treating unknown damage with structurally uncharacterized proteins. Applicants respectfully traverse.

The Action acknowledges that the specification is enabling for decreasing retinal ganglion cell death by administering an effective amount of ADNF as structurally defined by Brenneman. Claims 1 and 8 have been amended to define only the peptides ADNF-14 and ADNF-9 as the subject matter of the present invention. The Action asserts that the claims lack enablement because there is "no structure and little functional language ... recited in the claims." However, Brenneman clearly identifies ADNF-14 as having the amino acid sequence VLGGGSALLRSIPA and ADNF-9 as having the amino acid sequence SALLRSIPA. The previous Action virtually acknowledges the structural definition of ADNF contained within Brenneman, cited in the specification at page 2, line 14.

Section 112 requires simply that the patent applicant provide a disclosure which sufficiently enables one skilled in the art to carry out the invention commensurate with the scope of the claims. *Amgen Inc. v. Chugai Pharmaceutical Co., Ltd.*, 927 F.2d 1200, 1213, 18 U.S.P.Q.2d 1016 (Fed. Cir. 1991). It is well settled that a patent need not disclose what is well known in the art. *In re Wands*, 858 F.2d 731, 735, 8 U.S.P.Q.2d 1400 (Fed. Cir. 1988). In fact, it is preferable that what is well known in the art be omitted from the disclosure. *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 231 U.S.P.Q. 81 (Fed. Cir. 1986) (citing *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1463, 221 U.S.P.Q. 481, 489 (Fed. Cir. 1984)). Clearly, those of skill in the art, reading the claims in light of the specification, would be well aware of the structural definition of ADNF-14 and ADNF-9, since Brenneman is cited in the specification and sets forth the amino acid sequences of those peptides. It is submitted that the Applicants have met the requirements of § 112.

In light of the foregoing arguments, Applicants respectfully request that the enablement rejection be withdrawn.

D. The Claims are Not Anticipated

The Action next rejects claims 1-14 as being anticipated by Gozes *et al.* (WO 98/35042). Gozes is said to teach treatment of "retinal neuronal degeneration" with pharmaceutically effective amounts of ADNF polypeptides. Applicants respectfully traverse.

The present Action asserts that "the specification and Applicants admit in their response that Gomez's protein is also referred to 'as ADNF'; thereby, constituting admitted prior art." The Action mischaracterizes and misquotes Applicants' statement in their previous response. Contrary to the Action's assertions, Applicants actually stated that "Gozes discusses the use of ADNF III, also known as ADN**P** (Gozes, page 1, lines 2-4)." Thus, Applicants clearly have not stated that ADNF III is the same as the ADNF protein described in the present application. Rather, Applicants have properly and effectively distinguished the ADNF protein described in the present application from the protein discussed extensively in Gozes.

The Action observes that the specification does not state that ADNF III and ADNF are not the same protein. It is submitted that such a statement is unnecessary because the skilled artisan would be well aware that they are not the same protein. Gozes' description of the background makes it very clear to the skilled artisan that ADNF III and ADNF are not the same protein. For example, page 2 discusses the "efforts [that] have been made to understand the role of neuropeptides in regulating the release/expression of glia-derived trophic

substances and to identify new glial molecules that contribute to the survival of developing CNS neurons." (lines 10-13). Gozes goes on to discuss the 28 amino acid peptide, VIP, which has been shown to interact with high affinity receptors present on glial cells. (lines 23-30). Because the neuronal survival-promoting effects of the VIP-conditioned medium could not be attributed to IL-1 or protease nexin I released from astroglia, further efforts were made to identify other survival-promoting proteins released from glial cells stimulated by VIP. (page 3, lines 2-6).

Those efforts uncovered a novel neuroprotective protein secreted by astroglial in the presence of VIP. That novel protein was named ADNF or ADNF I. During the course of studies directed to the structural characteristics of ADNF, an active peptide fragment, ADNF-9 was discovered. Moreover, another active peptide fragment, ADNF-14, was shown to prevent neuronal cell death associated with the envelope protein (gp120) from HIV, with excitotoxicity, with β-amyloid peptide, and with tetrodotoxin. (page 3, lines 7-32). These are the same peptides claimed in the methods of the present invention.

It is clear from the description in Gozes that ADNF-9 and ADNF-14, derived from ADNF, are different from the ADNF III protein claimed in Gozes. The most obvious indicator that they are different proteins is on page 4 at lines 14-16, where Gozes states "As with the previously described ADNF I, ADNF III exhibits potent neuroprotective effects." (emphasis added). Anyone with any training in the English language would clearly understand that sentence as referring to two different proteins, ADNF I and ADNF III. As previously stated, nowhere within Gozes ADNF would be useful for treating retinal and/or optic nerve head damage. In fact, the only thing stated about ADNF made in Gozes describe

it as having the capability of protecting neurons from death associated with toxins relating to Alzheimer's disease, the human immunodeficiency virus (HIV), excitotoxicity, and electrical blockade.

Applicants reiterate that, since Gozes lacks a teaching of the use of ADNF peptides or proteins for the treatment of retinal and/or optic nerve head damage, but rather discusses a different protein from ADNF, it is submitted that Gozes does not anticipate the claimed invention.

In light of the foregoing arguments, it is respectfully requested that the anticipation rejection based on Gozes be withdrawn.

E. Conclusion

This is submitted to be a complete response to the outstanding Action. Based on the foregoing arguments, the claims are believed to be in condition for allowance; a notice of allowability is therefore respectfully requested.

The Examiner is invited to contact the undersigned attorney at (817) 551-4321 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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